

**AP[®] MICROECONOMICS
2009 SCORING GUIDELINES**

Question 3

6 points (2 + 2 + 1 + 1)

(a) 2 points:

- One point is earned for stating that north will be better for Blue Mart.
- One point is earned for explaining that Blue Mart earns a higher profit by locating north than it does by locating south (\$4,000 versus \$1,000).

(b) 2 points:

- One point is earned for stating that choosing south is not a dominant strategy for Red Shop.
- One point is earned for explaining that if Blue Mart chooses south, Red Shop is better off choosing north. (Red Shop's best strategy depends on Blue Mart's move.)

(c) 1 point:

- One point is earned for stating that Red Shop chooses south and Blue Mart chooses north.

(d) 1 point:

- One point is earned for redrawing the table with the correct entries:

		Blue Mart	
		North	South
Red Shop	North	\$900, \$1,800	\$3,000, \$5,500
	South	\$7,000, \$4,000	\$3,500, \$3,000

(a) If Red shop chooses a shop south of the city, Blue Mart should choose North to make a profit greater than if choosing south.
North = \$4,000 South = \$1,000

(b) No. Red Shop does not have a dominant strategy. If Blue Mart chooses North, it should go South and if Blue Mart chooses South, it should go North.

(c) If the two firms cooperate, Blue Mart should go North (\$4,000) and Red Mart should go South (\$5,000)

(d)

		Blue Mart	
		North	South
Red Shop	North	\$900, \$1800	\$3,000, \$5,500
	South	\$7,000, \$4,000	\$3,500, \$3,000

a) If Red shop chooses a location south of the city, Blue mart's best option is to move north.

No matter is Blue mart moves north or south, Red shop is still going to earn more money.

But if Blue mart moves north, it will earn \$4,000 ~~vs~~ vs. the \$1,000 it would earn in the south.

b) yes, moving south is a ~~dominant~~ dominant strategy for Red shop because no matter what location Blue mart chooses, Red mart will still earn more money.

c) Blue mart would locate south and Red shop would locate north.

d)

		Blue mart	
		N	S
Red shop	N	\$900, \$1,800	\$3,000, \$5,500
	S	\$7,000, \$4,000	\$3,500, \$3,000

a) North of the city because it will be able to dominate the north suburb as the Red Shop's influence will be in the south.

b) Yes, because the Red Shop can make more profit as the payoff is more in that area so the marginal revenue will be more than the marginal cost so greater profits will result.

c)

	North	South
North	\$900, \$1800	\$5000, \$5500
South	\$7000, \$6000	\$3500, \$3000

AP[®] MICROECONOMICS
2009 SCORING COMMENTARY

Question 3

Overview

This question tested students' understanding of oligopolistic behavior in the context of game theory.

Sample: 3A

Score: 6

The student earned all 6 points for this question.

Sample: 3B

Score: 3

The student lost 2 points in part (b) for incorrectly stating and explaining that choosing south is a dominant strategy for Red Shop. In part (c) the student lost 1 point for incorrectly stating the location of each shop if the two firms cooperate.

Sample: 3C

Score: 1

The student earned 1 point in part (a) for correctly stating that north is a better location for Blue Mart if Red Shop chooses south.